

REMARKS

Claims 1, 4-9 and 11-23 are pending in the application. Of those, claims 13-23 are allowed; claims 1 and 4-9 stand rejected as allegedly anticipated by Patent No. 6,744,296 to Chen; and claims 11-23 are considered allowable if rewritten in independent form to include the recitation of the base claim and any intervening claim.

Applicant respectfully submits that claims 1 and 4-9 are allowable over Chen.

Chen is directed to circuits and methods for accurately setting a phase shift. More specifically, the reference discloses generic amplifiers for effecting a phase shift. The Examiner relies on Fig. 7 of Chen to allege anticipation of claim 1. Fig. 7 is a schematic diagram of a phase-shift circuit 155. In circuit 155, latch 95 functions with D flip-flop 160, low-pass filter 100 is implemented with an R-C low-pass filter consisting of resistor R3 (165) and capacitor C2 (170). Timer 115 is implemented with an R-C analog delay circuit consisting of resistor R4 (200) and capacitor C3 (205) with MOS transistor M1 (210) being used to initialize the timer formed by resistors R4 (200) and capacitor C3 (205). Amplifier 105 is implemented with operational amplifier 190 and its feedback 110 is implemented with capacitor C1 (195) along with resistive divider 175. See the paragraph bridging cols. 7 and 8. As shown in Fig. 7, amplifier 190 Chen is an operational amplifier and, as such, does not provide two outputs.

In contrast, the invention of claim 1 is directed to a sense amplifier having two outputs. In pertinent portions, claim 1 reads:

a reset signal generator, containing a first input coupled to an OUT end of said sense amplifier, a second input coupled to an OUTB end of said sense amplifier, and an output coupled to said third input of said resetable control circuit

Thus, the sense amplifier of claim 1 has two outputs identified as OUT and OUTB. Claim 1 further recites "when either OUT or OUTB reaches a predetermined

low voltage level, said output of said reset signal generator goes high.”

Chen does not disclose a sense amplifier having two outputs, much less an amplifier where when either of the two outputs reaches a predetermined level, the output of the reset signal is activated.

At page 2 of the Action, the Examiner states that “an amplifier having a single output is equivalent to an amplifier having dual output wherein; one out put is connected to the ground.” (Emphasis original.) With this premise, the Examiner then concludes that the ground of amplifier 190 in Chen is a second output, and therefore anticipatory of claim 1. The Examiner also suggests that the ground of amplifier 190 and capacitor C3 can be connected to each other to form a circuit as claimed in claim 1.

Applicant respectfully disagrees. First, a ground output of an operational amplifier is not the technical equivalent of a signal output of a sense amplifier because grounding a sense amplifier would disable the amplifier circuit. Thus, the Examiner’s suggested modification is technically unsound and would render the sense amplifier unsuitable for its intended purpose. Second, the reference itself does not support the Examiner’s suggestion as there is no teaching, whether expressed or implied, that amplifier 190 and capacitor C3 of Chen are grounded to each other. Finally, claim 1 requires a reset signal generator being responsive to a “predetermined low output voltage” from one of OUT or OUTB. Grounding one of the two outputs (OUT or OUTB), would disable the reset signal generator al together, rendering the claimed device dysfunctional.

For these reasons, Chen is not anticipatory of claim 1 and any claim depending therefrom. Reconsideration and withdrawal of the anticipation rejection of claims 1 and 4-9 are respectfully requested.

Applicant agrees with the Examiner that claims 11-12 and 13-23 are in condition for allowance. Having addressed the Office’s rejection of claims 1 and 4-9, Applicant

respectfully submits that the application is now in condition for allowance. A notice to this effect is solicited.

The Examiner is invited to contact the undersigned to discuss any issue relating to this Application.

Although an extension of time is not deemed necessary at this time, the Office is hereby authorized to charge any appropriate extension fee to Deposit Account No. 04-1679, Duane Morris LLP.

Respectfully Submitted,



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